## CLAIMS

1 A method for the production of cellulose pulp, in which wood raw material that principally consists of softwood, preferably in the form of chopped wood chips, is treated in several stages in various treatment steps, whereby one of the stages comprises cooking the material in an alkali cooking fluid, with the aim of obtaining improved quality with respect to tensile strength and of obtaining higher yield, characterised by the controlled addition of wood raw material in the form of hardwood at an amount corresponding to 1-20% of the amount of softwood, preferably 3-15%, and more preferably at least 5%.

2 The method according to claim 1, characterised in that the said hardwood is added and mixed with the said softwood in the form of chips.

3 The method according to claim 2, characterised in that the said mixing takes place in a chip bin.

4 The method according to claim 1, characterised in that the said hardwood is added to and mixed with the said softwood in the form of a finely divided fraction, whereby the said finely divided fraction preferably is added after an impregnation stage.

5 The method according to claim 4, characterised in that the cooking takes place continuously, and that the said finely divided fraction is added at the top of the continuous digester at the input, such that mixing is achieved before entry to a first cooking zone.

6 The method according to claim 4, characterised in that the cooking takes place continuously and that the said finely divided fraction is added to the continuous digester by means of at least one fluid flow that adds and/or recirculates fluid to a cooking zone, such that mixing is achieved after entry to a first cooking zone.

7 The method according to claim 6, characterised in that at least parts of the said finely divided fraction are added by means of a flow of white liquor addition.

8 The method according to claim 6 or 7, characterised in that the said flow is delivered at the upper part of the digester, preferably closer to the top of the digester than to its midsection.

9 The method according to claim 1, characterised in that the said hardwood is added to and mixed with the said softwood in the form of logs, after which the wood raw material is converted to chips.

10 The method according to any one of the preceding claims, characterised in that the said hardwood is pre-treated with alkali before it is added to and mixed with the softwood.

11 The method according to claim 10, characterised in that the said pre-treatment takes place at an elevated temperature, preferably at a temperature of 80-160°C, and more preferably 100-140°C.

12 A cooking system for the production of cellulose pulp, in which a wood raw material that primarily consists of softwood is treated in several stages, comprising a raw material preparation unit (1), raw material storage (10; 7) and a cooking plant (15, 19), characterised by a control system (6) that regulates a controlled addition of wood raw material in the form of hardwood, such that the cellulose pulp produced at the outlet from the digester (19) will contain 1-20% of hardwood fibres and 80-99% of softwood fibres.

13. The cooking system for the production of cellulose pulp according to claim 12, characterised in that the said control system (6) is arranged to control the input flow to the said raw material preparation unit (1), such that the fibre raw

material stored in the raw material storage (10) contains 1-20% hardwood and 80-99% softwood.

14. The cooking system for the production of cellulose pulp according to claim 12, characterised in that the said raw materials storage (10; 7) comprises at least two separate storage spaces (10, 7; 1A′, 1B′), whereby at least one is intended for hardwood raw material and at least one other is intended for softwood raw material, and in that the said control system (6) regulates the flow from the said storage spaces such that 1-20% controlled addition of hardwood takes place before and/or during the cooking stage.

15. The cooking system for the production of cellulose pulp according to claim 14, characterised in that the said cooking system comprises a continuous cooking plant (15, 19), whereby means (4, 10; 5, 10) are arranged that ensure that the said flow of hardwood is delivered to a chip chute (11).

16. The cooking system for the production of cellulose pulp according to claim 14, characterised in that the said cooking system comprises a continuous cooking plant (15, 19), whereby means (9) are arranged that ensure that the said flow of hardwood is delivered at the input, preferably at the top (18), of the digester (19).

17. The cooking system for the production of cellulose pulp according to claim 14, characterised in that the said cooking system comprises a continuous cooking plant (15, 19), whereby means (8) are arranged that ensure that the said flow of hardwood is delivered to a fluid line (21) arranged at the digester (19).